

## ABSTRACT OF THE DISCLOSURE

A transmitter-receiver circuit is provided with a band pass filter which extracts a desired frequency component from a receiving signal and a low pass filter which removes an unnecessary frequency component from a transmitting signal. In the transmitter-receiver circuit, the band pass filter and the low pass filter are formed in the same chip so that a variation of impedance elements becomes the same, and a frequency adjustment signal, which is generated in a digital circuit, to adjust band pass characteristics of the band pass filter is commonly used for the adjustment of a variation of the band pass filter. Therefore, by sharing the configuration for detection and adjustment of the variation, it is possible to reduce size of the circuit and make a cut-off frequency of the low pass filter constant, thereby generating a stable transmitting signal.